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UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL RESEARCH ADMINISTRATION  
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE  
WASHINGTON 25, D. C.

August 27, 1945

To: All Cooperators of the Cotton Insect Survey

The approaching maturity of the cotton crop with the scarcity of squares and an ample supply of calcium arsenate available for protection of late bolls from boll weevils, bollworms, or leafworms make it seem unnecessary to continue making weevil infestation records after the week ending September 1. However, if the entomologists or extension workers feel it would be useful to continue these records to a later date in some areas, we would be glad to receive them.

We would like for you to continue to advise this office of the spread and abundance of leafworms, the abundance of sucking insects on cotton in the southwest, and any unusual insect damage to cotton or shortage of insecticides. The Division of Cereal and Forage Insect Investigations would also appreciate receiving additional reports on the occurrence and damage caused by the velvetbean caterpillar and the availability of cryolite in your State.

The report on Cotton Insect Conditions for the week ending September 1 will be the nineteenth and last report for this season unless some special conditions arise that make additional reports useful. We greatly appreciate your fine cooperation in obtaining the information that has made these reports possible in spite of the shortage of help and your many additional duties caused by the war.

Very truly yours,

A handwritten signature in dark ink, appearing to read "U. C. Loftin". The signature is written in a cursive, flowing style with a long horizontal stroke at the end.

U. C. Loftin, Acting in Charge  
Division of Cotton Insects

THE NATIONAL BUREAU OF INVESTIGATION  
UNITED STATES DEPARTMENT OF JUSTICE  
WASHINGTON, D. C. 20535

MEMORANDUM FOR THE DIRECTOR

SUBJECT: [Illegible]

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Very truly yours,

[Illegible signature]

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UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL RESEARCH ADMINISTRATION  
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE  
WASHINGTON, 25, D. C.

In Cooperation with State and Federal Agencies

COTTON INSECT CONDITIONS FOR WEEK ENDING SEPTEMBER 1, 1945  
(Nineteenth Cotton Insect Survey Report for 1945)

Boll weevils continue to increase and damage is more severe this season than for any year since 1941. The heavy weevil infestation in bolls has lowered the grade of lint and the crop should be picked as promptly as possible to prevent additional damage from weather. The numbers of weevils entering hibernation this fall can be greatly reduced by cutting or pasturing the cotton stalks early.

Bollworms are causing serious damage in the Santa Cruz Valley south of Tucson, Arizona. Large and small worms are attacking both squares and bolls and fields are being dusted by airplane. Damage has been reported from practically all counties of Oklahoma, ranging from very light to serious. Damage also continues to the cotton in Texas that is not too mature to be attractive to bollworms.

There was very little change in the leafworm situation during the week. In Texas infestations are widely distributed over the State but no serious outbreaks have occurred.

In Oklahoma, Mr. C. F. Stiles reports leafworms from Tillman and Jefferson Counties and that they are perhaps present in limited numbers in all of the southern counties.

In Louisiana and Arkansas the infestations remain about the same.

In Florida light infestations of leafworms were reported south of Gainesville but no larvae have been found to the north. In the Tallahassee area larvae of Anomis species which cause damage similar to leafworms are fairly common in cotton fields but damage has been negligible.

In Tennessee, Kentucky, Illinois, and Missouri no leafworms were found in 24 counties inspected by Federal entomologists this week.

Much of the cotton is now so far advanced that control measures will not be necessary but late cotton may still need protection.

This will be the last report on cotton insect conditions for the season unless some unforeseen condition arises.

BOLL WEEVIL

TEXAS: General showery weather with rains up to 9 inches was favorable for late weevil increase and damage in most areas except western Texas and the extreme southern section where stalks have been destroyed.

(Over)



The infestation in 92 fields in 18 counties averaged 72%, or a weighted State average of 55%. All of the fields were infested; 2% of the fields ranged from 1 to 10% infestation; 4% from 11 to 25% infestation; 11% from 26 to 50% infestation; and 83% above 50% infested squares. In two east Texas counties the average infestation was 91%; in 11 Blackland counties, 72%; in 2 Edwards Plateau counties, 62%.

OKLAHOMA: Boll weevils have taken a heavy toll of squares and small bolls during the week. Infestation remains high over the eastern portion of the State and will no doubt continue high during the remainder of the season.

Examination of 109 fields in 20 counties averaged 50% infested squares. One percent of the fields were not infested; 4% of the fields ranged from 1 to 10% infestation; 21% from 11 to 25% infestation; 23% from 26 to 50% infestation; and 51% above 50% infested squares. The infestation in 2 north-eastern counties averaged 7%; in 3 east central counties 28%; in 3 south-eastern counties 79%; in 5 central counties 42%; in 6 south central counties 46%; and in one southwestern county 13%.

LOUISIANA: Practically all squares are now being destroyed by weevils and bolls are suffering serious damage.

MISSISSIPPI: Excellent weather for cotton growth and insect control prevailed in the Delta during the week. The color of cotton plants has just begun to fade, indicating maturity. This is at least a month later than last year. Dusting for weevil control is now general in the northern Delta. Calcium arsenate-nicotine mixture is more plentiful than early in the season.

Of the 40 Delta fields examined this week, 38 were infested with an average of 40% punctured squares. No infestation was found in 5% of the fields; from 1 to 10% in 2% of the fields; from 11 to 25% in 18% of the fields; and above 25% infestation in 75% of the fields.

Examination of 370 fields on a plantation in Bolivar County showed infestations ranging from 3 to 90%, with an average of 28%. All of the fields were infested; 19% of the fields ranged from 1 to 10% infestation; 40% from 11 to 25%; and 41% above 25% infestation. It is planned to dust the entire acreage three times to save some of the small bolls.

FLORIDA: In north central Florida boll weevil damage has been about 25 to 30% on cotton growing on the heavier soils and 10 to 15% on lighter soils. In most fields all of the top bolls have been ruined and most squares large enough to puncture are now infested.

SOUTH CAROLINA: Weather conditions were very favorable for cotton development. Cotton is opening rapidly with some fields in the southern section completely harvested and picking becoming general in all but the upper Piedmont counties. Squares are becoming too scarce to make examinations and bolls are badly damaged.

NORTH CAROLINA: Clear, sunny weather accelerated opening in the eastern section and was favorable for boll development in other sections. Weevil infestation in squares is now near saturation and considerable damage to bolls is indicated.

The average infestation was 69% in 47 fields examined in 11 Piedmont and north central counties. All of the fields were infested and 40 fields had more than 50% punctured squares.

VIRGINIA: Infestations have increased very sharply since the last examination two weeks ago. The average infestation in 17 fields in 3 southeastern counties was 55% this week as compared to 8.5% for the week ending August 18. The infestation was above 25% in all of the fields and above 50% in over half of the fields. Migratory weevils are becoming sufficiently abundant to damage boll

TENNESSEE: The first inspection for boll weevils in Tennessee this season showed that 24 of the 133 fields examined were infested. The infestations ranged from 1 to 51% punctured squares, with an average of 15% for the infested fields.

ILLINOIS, KENTUCKY, AND MISSOURI: No boll weevils were found in 20 cotton fields examined in Illinois, 17 fields in Kentucky, nor 65 fields in Missouri.

#### COTTON FLEA HOPPER

TEXAS: The populations in 41 fields averaged 9 flea hoppers per 100 terminal buds or about the same as for the two past weeks. Ten percent of the fields were not infested; 53% of the fields ranged from 1 to 10 flea hoppers; 32% from 11 to 25 flea hoppers; and 5% had more than 26 flea hoppers per 100 terminals.

OKLAHOMA: Populations remain spotted and generally light. An average of 8 flea hoppers per 100 buds were found in the 104 fields examined. Seventeen percent of the fields were not infested; 48% of the fields ranged from 1 to 10 flea hoppers; and 35% had more than 10 flea hoppers per 100 terminal buds.

#### OTHER PLANT BUGS

##### ARIZONA:

Salt River Valley: Continued hot and fair weather caused bolls to open rapidly. Enough bolls are open in all stub and some early-planted fields for a good picking but progress is slow because of hot weather and insufficient labor.

There was very little change in insect conditions as a whole. Injurious insect populations are high in some fields and still fairly low in others. Considerable acreage was dusted by plane this week.

In the Goodyear area there was an average of 7.8 injurious insects on stub and 10.3 per 100 sweeps on plant cotton. Last week the averages were 3.5 on stub and 11 on plant. At Mesa sweepings on plant cotton averaged 5.8 injurious insects per 100 sweeps, or about the same as last week. At Sacaton the populations averaged 7 per 100 sweeps in the dusted plots and 22 in the checks; at Buckeye the averages were 7 and 17, respectively.

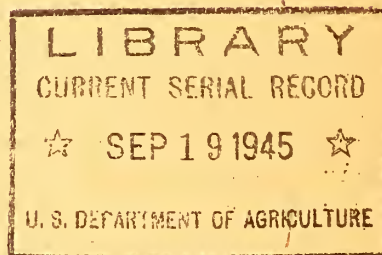
Santa Cruz Valley: Weather was hot and humid with no rains of importance during the week. A considerable number of bolls are opening in the earlier fields. Insect populations were considerably lower than last week, averaging less than 3 per 100 sweeps in the dusted and 7 in the undusted fields.

Final County: Cotton is maturing rapidly and picking is well under way in some parts of the county. Populations ranged from 0 to 47 injurious insects with an average of 17 per 100 net strokes. Lygus spp. still predominates but stinkbugs are building up.

##### NEW MEXICO:

Pecos Valley: General rains ranging from  $1\frac{1}{2}$  inches at Roswell to 3 inches at Loving with severe hail damage to 400 acres near Roswell this week. Insect populations showed a general decrease, ranging from 0 to 20 injurious insects per 100 sweeps. Some dusting is still in progress but at the time of peak infestation it appeared cotton would suffer from lack of water and growers were reluctant to use insecticides.  
Prepared September 5, 1945.







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